

THE CLAIMS:

1. An automotive wheel for use with a tubeless tire, comprising
a circular rim having formed coaxially on opposite ends thereof outwardly
flaring circumferential flange sections disposed to be engaged by the beads of a
5 tubeless tire mounted on the rim,

said rim having intermediate said opposite ends thereof a transverse wall
section extending transversely of the axis of said rim, and having therethrough a
central opening disposed coaxially of said axis,

a first air duct formed within said wall section to open at one end thereof
10 on the outer periphery of said rim for communication with the interior of the tire
mounted thereon, and opening at the opposite end thereof on one side of said wall
section,

a second air duct formed within said wall section to open at one end on
said one side of said wall section and opening at its opposite end on the opposite side
15 of said wall section for connection to a tire inflation system, and

a tire inflation control valve secured to said one side of said wall section
and having therein a pair of air inlet/outlet ducts, one of said pair of ducts being
sealingly secured at one end thereof to said opposite end of said first duct, and the
other of said pair of ducts being sealingly secured at one end thereof to said one end
20 of said second duct.

2. An automotive wheel as defined in claim 1, wherein said wall section of
said rim has therethrough outwardly of said central opening a circular array of
openings for use in mounting said rim on the axle of a vehicle with said one side of
said wall section facing outwardly of the vehicle.

3. An automotive wheel as defined in claim 1, wherein said rim is made of
forged aluminum.

4. An automotive wheel as defined in claim 1, wherein
said wall section is one of two wall sections of said rim releasably
secured together to extend transversely of said axis of the rim, and

30 the other of said two wall sections has therethrough a central opening larger
than and disposed coaxially of the central opening in said one wall section.

5. An automotive wheel as defined in claim 4, wherein
radially outwardly of said central openings registering portions of said wall
sections have thereon confronting, circumferential surfaces engaged one with the
35 other, and

a resilient O-ring is sealingly secured between said confronting, circumferential surfaces and radially outwardly of said control valve.

6. An automotive wheel as defined in claim 5, wherein said two wall sections are releasably secured together by a plurality of nut and bolt combinations arranged in a circular array coaxially of said rim, and with the bolt of each such combination extending through a pair of registering openings in said registering portions of said wall sections.

7. An automotive wheel as defined in claim 1, wherein
the ends of said first and second ducts which open on said one side of said
10 wall section are spaced a predetermined distance from each other, and
said one ends of said pair of ducts in said control valve are also spaced
said predetermined distance from each other and register coaxially with said ends of
said first and second ducts which open on said one side of said wall section.

8. An automotive wheel as defined in claim 1, wherein said opposite end of
15 said second duct has therein a counterbore for accommodating a fitting of said tire
inflation system.

9. An automotive wheel as defined in claim 1, wherein
said one side of said wall section has therein a shallow, circumferential
recess surrounding said central opening coaxially thereof, and
20 said opposite end of said first duct and said one end of said second duct
form in the bottom of said circumferential recess a pair of spaced, circular openings
registering with and sealingly connected via intervening resilient O-rings with said
one ends of said pair of ducts in said control valve.

10. An automotive wheel as defined in claim 1, wherein
25 the circumferential flange section at one end of said rim is disposed to face inwardly of the vehicle upon which the rim is mounted, and the flange at the opposite end of the rim is disposed to face outwardly of the vehicle, and said one side of said wall section faces said opposite end of said rim.